

1. (Amended) An antibody-based fusion protein comprising an N-terminal immunoglobulin (Ig) chain linked to a C-terminal non-Ig protein, wherein said antibody-based fusion protein comprises at least one of:

a) an amino acid alteration within 10 amino acids from the C-terminus of said N-terminal Ig chain; or,

b) an amino acid alteration within 10 amino acids from the N-terminus of said C-terminal non-Ig protein;

and wherein said antibody-based fusion protein has a longer circulating half-life *in vivo* than a corresponding antibody-based fusion protein without said amino acid alteration.

2. (Amended) The fusion protein of claim 1 wherein said amino acid alteration increases the hydrophobicity of said antibody-based fusion protein.

3. (Amended) The fusion protein of claim 1 or 2 wherein said alteration changes the C-terminal amino acid of the Ig chain.

4. (Amended) The antibody-based fusion protein of claim 7, wherein said Ig chain has substantially reduced binding affinity for a Fc receptor selected from the group consisting of Fc γ RI, Fc γ RII and Fc γ RIII, when compared to the binding affinity of an unaltered IgG1 for said Fc receptor.

5. (Amended) The antibody-based fusion protein of claim 17, wherein said colony stimulating factor is a granulocyte-macrophage colony stimulating factor.

6. (Amended) The fusion protein of claim 1 further comprising a linker between said Ig chain and said non-Ig protein.

7. (Amended) The fusion protein of claim 1, 2, 5, 6, or 7, wherein said alteration is a substitution of one or more amino acids.

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29. (Amended) The fusion protein of claim 1 comprising a first mutation in the C-terminal portion of said first polypeptide and a second mutation in the N-terminal portion of said second polypeptide.

34. (Amended) The fusion protein of claim 1 wherein said Ig chain is IgG1.

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35. (Amended) The fusion protein of claim 1 wherein said alteration is selected from the group consisting of point mutations, deletions, insertions, and rearrangements.

36. (Amended) The fusion protein of claim 4 wherein the C-terminal amino acid of said N-terminal Ig chain is altered to be an amino acid with a non-ionizable side chain.

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45. (Amended) The fusion protein of claim 1, wherein said alteration introduces a hydrophobic or non-polar amino acid.

46. (Amended) The fusion protein of claim 45, wherein said hydrophobic or non-polar amino acid is selected from the group consisting of Leu, Trp, and Gly.

47. (Amended) The fusion protein of claim 46, wherein said hydrophobic or non-polar amino acid is Ala.